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ABSTRACT

To investigate the extent of literacy programs in the workplace, an indepth look was taken at the different types of literacy programs in the workplace to determine what can help the state of literacy in the United States. The literacy efforts in the workplace among federal, state, and local government, schools, unions, businesses, corporations, and the community at large were determined from sources found in research and university libraries, educational data bases, and professional journal articles. It was found that many successful efforts exist and are based on a collaborative or partnership effort. However, it was determined that many more programs are needed to address the workplace literacy problem. The Federal Government as well as state and local government, schools, unions, businesses, corporations, and the communities at large must join in the effort to help erase illiteracy from the workplace. Illiteracy in the workplace is a pluralistic problem that needs priority now if the United States wants to strengthen its economy by the year 2000. (26 references) (NLA)

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A LITERARY STUDY OF THE EXTENT OF LITERACY PROGRAMS IN THE WORKPLACE

By

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A Seminar Paper Submitted to Graduate Faculty,

Bowie State University

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ABSTRACT

Angela A. Hicks

A Literary Study of the Extent of Literacy Programs in the Workplace

Descriptors: literacy programs, literacy efforts, partnership efforts, collaborative efforts, literacy problems, workplace

The purpose of this study was to investigate the extent of literacy programs in the workplace. This was done through an indept look of the different types of literacy programs in the workplace to determine what can be done to help the state of literacy in the United States. A number of local programs were reviewed. This was done by looking at the literacy efforts in the workplace among federal, state, local government, schools, unions, businesses, corporations, and the communities at large. It was found that many efforts exist and are based on a collaborative or partnership effort. Currently many successful programs exist in the workplace. However, it was determined that many more programs are needed to seriously address the literacy problem. The federal government, as well as state, and local government, schools, unions, businesses, corporations, and the communities at large must join in the effort to help erase illiteracy from the workplace. It is a pluralistic problem that needs priority now if the United States wants to strenghten its economy by the year 2000. This was a literary study. Sources were used from research and university libraries, educational data-bases, and professional journals and articles.

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CHAPTER I

INTRODUCTION

Literacy in America has become a commodity of measurable value for those who acquire it. Some estimates say at least 27 million adults and maybe 45 million adults in the United State lack the basic reading, writing, and computation skills necessary to perform successfully in the workplace (Bernardon,1989). Some adults lack the skills to perform even marginally in the workplace.

The United State economy has shifted emphasis away from the production of goods towards the provision of services which means the economy will increasingly rest upon the skill and knowledge of its workers (Venezky,1987). This along with tougher international competition is making literacy in the United States workplace more essential now than it has ever been (Bernardon,1989).

In essence, America have to get back to the basics and invest in the most important resource of all and that is people. In order to do this, a way must be devised for businesses to address the basic skill problem in the workplace (Sherman,1989). Workplace programs must be devised and put into place so that America can start to work through its' literacy problems.

An educational firm, Imperial Educational Corporation, did devise a way to help businesses address the basic skill problems of their employees. A tried and true program with a twenty year track record, Imperial has offered a work- and home-based tutoring curriculum in a school setting (Gordon, Ponticell, & Morgan,1989). This program has been successful because of (a) well through out specially designed curriculum; (b) the involvement of its administers in the selection and training progress of tutors and students and then their general supervision of the program; (c) the use of a wide variety of courses in Adult Basic Education (ABE), English as a Second Language (ESL), and General Educational Development (GED) that are general, job related and job specific; (d)Individualized Instructional Programs (IIP) which account for individual differences and is easily adaptable to many different learning problems.

Also, the program design is especially for trainers to help them follow a thoughtful, sequential presentation with an individual or group of no more than five or less. A training module would include forty hours of class instruction. This is accomplished through two hour classes that meet twice weekly for ten weeks. This is an example of what businesses can do through well thought out program, to improve the state of literacy in America. Exemplary programs of this type must become the norm and not the exception in order for America to slash workplace illiteracy in half by the year 2000.

Statement of the Problem

Several authors(Bernardon,1989;ETS,1989;Milulecky,1988) have indicated how widespread the illiteracy problem is among the workforce in the United States. The number of adults who lack the basic skills to perform adequately in the workplace has been estimated at about 27 million and has been estimated as high as 45 million. The illiteracy problem, coupled with a economy changing from the production of goods to the provisions of services means America will increasingly come to rely on this population for the provision of services.

A study of the literacy programs in the workplace is needed. Based on current research, many workplace literacy programs exist. It is imperative that a study is done to determine to what extent literacy programs actually exist in the workplace.

Purpose of the Study

The purpose of this study was to determine the extent of literacy programs in the workplace. Some of the major issues addressed are as follows:

1. An examination of literacy programs in the workplace to determine what literacy efforts are successful in the workplace.
2. To determine the literacy efforts in the workplace among federal, state, local government, schools, unions, businesses, corporations and communities.

Need for the Study

The literacy status of 27 to 45 million adults in the United States is in question. This indicates that many adults have gone through the traditional educational system as under-achievers and continue to be under-achievers in their adult life due to the lack of basic skills such as reading, writing, and computation skills. Many adults may feel embarrassment and shame over the fact they are functionally or marginally illiterate (Chang,1987). Programs do exist to help these individuals. Nevertheless, to what extent do these programs exist and how widespread are they creates a need for this study.

Design of the Study

This is a literary study. The sources used to do this study were: Library of Congress, Department of Education Research Library, Howard University graduate, business and undergraduate libraries, University of Maryland graduate and undergraduate libraries, Bowie State University Library and local Prince George's County libraries in Oxen Hill, Hyattsville and New Carrollton Maryland. Also some other appropriate sources used were: several professional journals, magazines, newsletters, newspapers, textbooks, periodicals, and Adult Basic Education offices in Prince George's County, Fairfax and Alexandria Virginia, and with the Board of Education in the District of Columbia.

Population

This study did not have a population.

Sample

A sample is not applicable in this study

Procedures and Techniques

Descriptive data was gathered through the use of computer searches. Data was also gathered from journals, magazine articles, and books concerning literacy in the workplace.

Instrumentation

No instrumentation was used in this study.

Data Analysis

Findings were synthesized from research data to determine the extent of literacy programs in the workplace. The data will be presented in a descriptive and narrative form.

Limitation of the Study

Some limitations of this study were: the historical information ascertained for this study was from secondary sources and not the actual amendments and laws, the validity and reliability of this study was based on sources found in various professional journals, articles,

newspapers, books and data-bases, the information ascertained was a result of the author's selection of sources and research.

Definition of Terms

The following are definition of terms used throughout this study:

1. Functionally illiterate -an individual who cannot read of write well enough to function competently in this society.
2. Marginally illiterate -an individual with fifth or sixth grade reading and writing skills who is able to get by in this society but is unable to perform all the tasks associated with full citizenship such as reading a daily newspaper.
3. English as a Second Language(ESL) -a program to help build english skills.
4. Demographics -characteristics of the size, growth, density, and vital statistics of the human population.
5. Human Resource -people
6. Efforts -measures taken to improve a situation
7. Basic skills, skills gap/deficiency, illiteracy -terms used interchangeably to describe an individual who lacks either reading, writing, computation skills/arithmetic, or all of the above skills.

8. Workplace Literacy or Adult Basic Education Programs -programs of instruction in the workplace that address reading, writing, and/or computation skills of employees.
9. Adult Basic Education(ABE) -instruction for adults which addresses basic skills in reading, writing, and/or computation skills.
10. Extent -how widespread things really are.

Significance of the Study

The results of this study may assist individuals in understanding how prevalent the problem of literacy is in the United States and the need to look at the problem in their own communities. Also, this study may aid in showing individuals in the communities how necessary it is to start doing something about illiteracy now in order to strengthen the economy and head off the projected problems the United States may face in the year 2000. Since many of the successful workplace literacy programs selected in this study were local, they may help other local businesses, organizations, communities, and individuals to see what can be done through workplace literacy programs. They can learn what they can do to help erase illiteracy among the workforce.

CHAPTER 11

SURVEY OF THE LITERATURE

The purpose of this present chapter was to examine the state of literacy and literacy programs in the United States both past and present. In order to provide a thorough examination, this chapter will cover the following area:

1. History
2. Research on Literacy Programs
3. The Need for Literacy Programs in the Workplace
4. Research on Literacy Efforts in the Workplace
5. An Evaluation of Literacy Programs in the Workplace

History

In 1964, Lyndon B. Johnson signed legislation to establish the national Adult Basic Education (ABE) program. This program was part of the Economic Opportunity Act and one small strategy in the war on poverty (Parker,1990). The war was viewed by many as the economic and social struggle between rich and poor, employed and unemployed, and educated and illiterate. The purpose of legislation was as follows:

> to initiate program of instruction for persons 18 years old and older whose inability to read or write the english

> language constitutes a substantial impairment of their ability to obtain or retain employment (Parker,1990 p.1).

Two years later, Johnson signed the Adult Education Act of 1966. The purpose of this program was broadened to do the following:

> encourage and expand basic education programs for adults, to enable them to overcome english language limitations to improve their basic education in preparation for occupational training and more profitable employment and to become more productive and responsible citizens (Parker, 1990 p.2).

This Legislative mandate expanded even further in 1970 from basic skill attainment to high school completion which reflected the need for federal support of GED programs for several states. In 1978, the Adult Education Act mandate was amended "to enable all adults to acquire basic skills necessary to function in society"(p.3). The wording was a direct result of the Adult Performance Level(APL) project of 1971-76 which identified levels of adult functional competence and recommended competency-based approaches to assessment and programming (Venezky & other,1987).

Parker (1990) also noted that the responsibility for staff training and program innovation was shifted from the National Grant program to individual state programs by Congress. This made any national efforts related to this issue virtually impossible to implement. Venezky (1987) noted California and later Maryland were responsible for a statewide mandate to implement competency-based programming and funded curriculum, assessment, and staff development

projects. California and Maryland were excellent examples of long-term consistent investments in program improvement strategies. New York and other states developed some promising alternatives to traditional schools. New York's external diploma program has continued to expand and service adult learners, especially middle-aged and older adults.

Presidential awareness and heighten national attention through the media brought increased expectations to ABE programs. The 1988 amendments to the Adult Education Act expected programs to do the following:

1. serve larger numbers of institutionalized adults;
2. reduce the use of federal funds for local and state administration;
3. upgrade state plans to include statewide goals, strategies, methods, and expected outcomes;
4. develop better evaluation systems; and
5. after 25 years of a token ten percent funding, match requirement, state and local programs must provide at least 1/4 of the funding by 1992 (Parker,1990).

Historically, the standards used to define literacy have changed. During World War I, reading on a fourth-grade level was considered literate. In the 1960's it was redefined as an eight-grade reading level was needed to be considered literate (Venezky,1987). By the 1970's, educators insisted that a twelfth-grade reading level was necessary in order to function in society as a contributing member. Kirsh stated:

> And like any currency, literacy has been subject to inflationary pressures. It's not so much that Americans are becoming less literate, but that we keep raising the literacy standards we expect them to achieve(ETS Development, 1989).

Literacy can not be easily defined. There is little agreement on what skills comprise literacy. Literacy means being able to read and write, but which material? This may mean material people are able or unable to read and write. Well, what material is that? The list of materials will always differ from person to person and situation to situation (Bormuth, 1975). Currently, a functionally illiterate individual is someone who cannot read or write well enough to function competently in this society. A marginally literate individual is someone with fifth or sixth grade reading and writing skills who is able to get by in this society but is unable to perform all the tasks associated with full citizenship such as reading a daily newspaper (Guidelines,1986).

Research on Literacy Programs

Due to the lack of a general consensus on a definition of literacy, it is important to have literacy programs with a specific focus. It should be noted that general literacy and workplace literacy programs have different goals (Imel,1980).

Many adult have gone through the public school system and are still functionally illiterate. These literacy related problems may have been posed by the teacher,

the student, the reading and writing material, or a combination thereof (Chang,1987). Studies done on workplace literacy training have found that job-related reading and writing differs considerably from the literacy activities of students in school. Literacy in school is perceived as a series of discrete exercises requiring no reflective skills or comprehension but to satisfy an assignment (Mikulecky,1987). Workplace literacy is the combination of skills needed to function in the workplace which includes decision-making, critical thinking, identifying and solving problems, setting goals, speaking, writing competently and arithmetic (Workplace literacy,1988).

To help solve some of the problems associated with general literacy programs, basic education administrators must ensure that Adult Basic Education(ABE) instructors possess the following:

1. A thorough understanding of the reading and writing process no matter what the subject area.
2. The ability to individualize instruction and assess a student's ability and interest.
3. A thorough understanding of the difference between reading for school and reading on or for a job-situation.
4. An awareness of the complexity of the "readability" of materials both personal and commercially prepared (Chang,1987).

In order to understand the levels of literacy, Education Testing Service (ETS) (1989) took an initial step in 1985 to administer a national assessment of educational progress(NAEP) by conducting a national survey of the literacy skills of young adults between the ages of 21 and 25. Three scales representing distinct aspect of literacy came out of that assessment. They were as follows:

1. Prose literacy - the knowledge and skills needed to understand and use information from text such as reference manuals, assembly instruction and maintenance procedures.
2. Document literacy - the knowledge and skills required to locate and use information contained in job applications, maps, bus schedules, tables and indexes.
3. Quantitative literacy - the knowledge and skills needed to apply arithmetic operations to information embedded in printed materials such as balancing checkbooks, figuring tips and the amount of interest etc.

Since legislative mandated an amendment in 1988 to the Adult Education Act, there has been heightened awareness of workforce education and programs with an employment economic focus. Most employers require the ability to read, write, compute and then have the ability to use these skills in problem solving (Imel,1988). Literacy skills needed to perform work successfully are often referred to as

job-related or workplace literacy skills (Imel,1989). There are different types of literacy programs in the workplace that address skill levels. These literacy programs have a focus on either Adult Basic Education (ABE), English as a Second Language (ESL), General Education Development (GED), or a combination thereof (Mark,1987).

There are three specific types of programs used in the workplace. They are as follows: (a)general adult, (b)work-related and (c)job-specific literacy programs. The need of the employer and employee determine which program is used but each program is adaptable to the specific needs of the employer and skill levels of the employees. An example is employees in need of English as a Second Language (ESL) may need a general literacy program to help build their English skill level prior to work-related or job-specific programs (Workplace Literacy,1988).

General adult literacy programs expand one's general knowledge and improve general literacy skills which may cover all subject areas. This program is aimed at lower level learners and those who haven't completed high school. These programs may instruct individuals on daily basic survival skills such as reading labels on medicine bottles or for safety, reading to a child, balancing a checkbook or writing a letter(workplace literacy,1988).

At the mid-level, this curriculum is designed to increase basic education in reading writing, math, science and social studies for students between the fifth and eighth

grade levels. Students prepare for their General Education Development (GED) when they are at the highest level in this program. The classes focus on the needs and interest of the individual, which may be increased responsibility in the workplace or an interest to further their education. The latter may increase the need for instruction in math and writing.

Work-related literacy programs focus on improving the knowledge base and literacy skills of an employee in the general work world. The employers' requirements as well as the individuals' needs are examined and general workplace material is introduced to the student. The training curriculum is job-related and the goal of the program is to improve job performance (Thiel,1985).

Job specific literacy programs focus on improving an employee's job-related knowledge and basic skills directly related to the employee's position. The curriculum is job and task specific to meet individual employee's job descriptions (Basic Principles,1989).

The Need for Literacy Programs in the Workplace

Now more than ever the United States needs successful literacy efforts in research, projects, and partnerships. Research supports the fact that the United States continues to move from a manufacturing and industrial base society to an information service economy (lisack,1988). This means the economy will increasingly rest upon the skill and

knowledge of its worker. This along with tougher international competition is making literacy in the United States workplace more essential now than ever before. The occupational skill requirement for new jobs are increasing and for the first time in the history of the United States, the majority of new jobs will require post-secondary education (Bernardon,1989).

The United States is the dominant world power and Japan is number two and closing fast. Manufacturing superiority has been forfeited to the Japanese and a better educated workforce is behind the success in manufacturing (Human Capital,1988). In the United States, ninety percent of new jobs will be in the service industry versus eight percent in manufacturing. The Japanese functional literacy rate in 1988 was better than ninety-five percent where as American's functional literacy rate was down by eighty percent. At least 27 million people in the United States are functionally illiterate. Some estimates place that number as high as 45 million (Human Capital,1988).

America has not invested adequate funds on human capital and now it seems investing in people is the only way to reverse the problem. For the past fifteen years, Washington has been throwing incentives at businesses and large corporations to increase spending on such things as plant and equipment, while outlays for human capital in the past fifteen years have seriously lagged behind (Human Capital,1988).

Our foreign counterparts (Japan and Europe) get a lot more for their education dollars than the United States (Human Capital,1988). Statistics show that Japanese children spend 240 days a year in school, French and German children spend 220 days a year in school, but American children only spend 180 days a year in school. American high school students score below their foreign counterpart in both math and science. Americans test two to three years behind the Japanese which matches the difference in time spent in school from kindergarten through high school (Farkis & Hotchkies,1985).

The national high school drop out rate in the United States is twenty-five percent and is as high as fifty percent in some inner city high schools. There is also the problem with low teacher salaries which is still yet another refection on the United States investment in education (Chang,1987).

Jobs that require low basic skills are decreasing and this is a major problem for individuals who fall into this category both employed or unemployed. The projected fastest growing occupations by the Bureau of Labor Statistics are (a) industrial robot production; (b) geriatric social worker; (c) energy technician; (d) industrial laser processing; (e) on line emergency medical and genetic engineer. These projections show the difficulty that unskilled individuals with low literacy skills will have in finding employment (Milulecky,1988).

The report also revealed that the greatest number of new jobs will not be related to high technology. Between 1976 and 1990, the United States will need 672,000 new janitors but only 199,000 new computer systems analyst. However, these janitorial jobs will require the ability to read manuals, manage directions on chemical solvents and handle new equipment. Our growing service industries requires more paperwork and regular managing of information to solve problems than the older, higher paying "muscle work" production industries (Milulecky,1988).

An Adult Performance Level study (APL) Northcutt(1975) showed the type of literacy skills several researchers observed in the workplace of a cross section of adults:

1. Sixty percent did not accurately calculate.
2. Forty-four percent did not successfully match want ads job requirements to personal qualifications.
3. Forty percent did not accurately determine correct change given a cash register receipt and the denomination of a bill.
4. Thirty-six percent did not enter the correct number of exemption on a w-4 form.
5. Twenty-six percent did not determine if their paycheck was correct.
6. Twenty-four percent did not add their own correct return address to a letter.
7. Twenty-two percent did not address a letter well enough to ensure it would arrive at its destination.

8. Twenty percent did not comprehend an equal opportunity announcement.
9. Twenty percent did not write a check that would be accurately processed by a bank (Milulecky,1988).

The results of this study were supported by major functional literacy studies of the 1970's such as the Survival Literacy Study (Louis Harris & Assoc.,1970), the Adult Functional Reading Study (Murphy,1975), The Mimi-Assessment of Functional Literacy (Gadway & Wilson,1974), and military reports from Project REALISTIC (St. Cht. Caylor, Fox, Hauke, James, Snyder, & Kern,1972).

National Assessment of Educational Progress (NAEP) released a major study of the functional literacy abilities of twenty-one to twenty-five year old adults. The NAEP results took into account the large percentage of the adult population which have difficulty with literacy skill demands present in many lower- and middle-level jobs. When viewing this population it was clear that there wasn't a large degree of basic illiteracy. Over ninety-five percent of the young adults could do the following:

1. sign their names
2. locate expiration dates on a drivers license
3. locate a time on a meeting form
4. enter a caller's number on a phone message pad
5. write about a job of interest
6. enter their own personal information on a job application

For slightly complicated task, the percentage of adults that were able to meet the basic skill demands was much lower. Only seventy percent of the young adults could do the following:

1. write a letter stating that an error was made in billing
2. use an index from an almanac or manual
3. enter and calculate bank balances
4. locate eligibility employee benefits from a table

Only ten to forty percent of young adults were able to perform complicated mult-step occupational literacy task such as the following:

1. orally interpret distinctions between two types of employee benefits
2. use departure and arrival schedules
3. plan travel arrangements with flight schedules
4. calculate and total cost from catalogues

These results suggested that task associated with growing service and technical occupations are the tasks that significant numbers of young adults are unable to successfully perform. A growing number of individuals are having problems meeting the high literacy demand of the workplace (Milulecky,1988).

Chisman (1989) suggested that the federal government must adopt measures to initiate a national effort to enhance literacy that is commensurable with national need. The federal government should do the following:

1. Executive branch leadership

- The president should make adult literacy and workforce literacy a major priority of his administration

- A presidential appointed special six-month task force is needed to develop strategic plans on the nation's goals and on achieving them.

- A cabinet council on Adult Literacy should be establish to coordinate federal efforts towards meeting national goals: getting the most out of existing program and starting new initiatives.

2. The administration and Congress should introduce the Adult Basic Skills Act of 1989 to:

- Build a stronger intellectual base for adult literacy.

- Promote innovation in training and technology.

- reinforce federalism

- enchance the effectiveness of existing federal programs and place greater emphasis on workforce literacy in the following areas:

(a) the Job Training Partnership Act

(b) the Carl D. Perkins Vocational Educatin Act

(c) the Adult Education Act

(d) the Family Support Act

(e) other federal programs such as the Even Start family literacy program, Vista program, basic skills needs of the federal workforce and of

industries vital to national interest, and government-wide process of program enhancement.

The bottom line is that our nation's ability to compete is threatened by an inadequate investment in our most important resource. That resource is people. In order to slash workplace literacy in half by the turn of the century, we must successfully train two million workers per year and we must start now to meet the challenge (Bernardon,1989).

According to a Department of Labor study (1987), America is faced with drastic demographic changes which will affect the size, age, ethnic, and racial composition of the American workforce. For the first time in history, the workforce will be older and growth will be slower. The United States population growth rate is declining. The number of young workers is declining both relatively and absolutely. The workforce will increase by twenty-six million workers but eighty percent of new entrants to the United States workforce will be women, immigrants, Blacks, Hispanic or Asian. The white male who dominated the workforce only a generation ago, will only represent fifteen percent of new entrants to the workforce. White male and female combined will account for fifty-seven percent of new entrants to the workforce (Lisack & Shell,1988).

These demographic changes will produce a workforce that is smaller with a higher percentage of disadvantage, middle-aged, inflexible, under-educated, and under-trained workers. Employers will have to exercise different options

to help them fill the skills gap, such as education and training programs for their employees (Lisack & Shell,1988).

Research on Literacy Efforts in the Workplace

ETS has made concerted efforts to head off the literacy problems facing the United States through a major commitment of human and financial resources to adult literacy. A ETS (1989) survey revealed that ninety-five percent of America's young adults can read well enough to accomplish simple routine literacy task. However, a closer look at the situation revealed that only half of those young adults performed as well as the average eleventh-grade student. This research suggest that half of our nation's young adults between the ages of 21 and 25 years of age, may conceivably be judged as having restricted literacy skills.

ETS (1989) also formed a partnership with the Department of Labor (D.O.L.) on a project called Workplace Literacy Assessment, to profile the literacy skills of three target populations:

1. The Job Training Partnership Act (JTPA) program.
2. Employment Service (ES), and
3. Unemployment Insurance (UI)

This again marks the first efforts of its kind to create and profile on-the-job literacy skills of this population. ETS and D.O.L. have formed a mutually beneficial relationship. With already completed research, it is possible for ETS to build relevant assessment measures for the D.O.L. population

and take the assessments from D.O.L. targeted population to develop a battery of new simulation task with known properties and be able to calibrate the new task to the three existing scales (prose, document and quantitative). The analysis of the errors made on the simulation tasks will provide ETS with pertinent information needed in the development of instructional materials for learning and assessment systems. The Workplace Literacy Assessment results will also help guide the direction of future basic education, skills training, and other labor programs.

Since heightened awareness of workforce education, there has been increased collaborative efforts among federal, state, and local adult education and training programs. There has also been support from businesses, corporations, and unions to assist adults in becoming more employable and promotable. The federal, state, and local government, businesses, corporations, unions, schools, and the community at large recognize the literacy problem facing the United Stated and is willing to join the effort to overcome it (Bernardon,1989).

Chisman (1989) suggested that Americans must first realize the enormous latent political support in the area of federal, state, and local government, businesses, corporations, unions, schools, and the community at large in order to improve the state of illiteracy in the United States. She suggested before any improvements or progress can be made by the federal government or the nation as a

whole, Americans must take on a new outlook toward adult literacy. To make better use of the latent support, Americans must know how to approach this complex field and how to form a better understanding of it. Chisman (1989) also suggested in particular, Americans must understand that (a) school reform will not solve the problem; (b) volunteers alone cannot solve the problem; (c) business alone will not solve the problem; (d) technology is not a dehumanizing factor but an essential ingredient in any nationwide literacy effort; (e) the national effort is and must be pluralistic; (f) there are at least two dimensions of the literacy problem: the difficulties experienced by all of those with limited basic skills, and the difficulties of the three to four million Americans with limited proficiency in English (the ESL population).

Many businesses and industry, labor, schools, government, community organizations and workers themselves have come together to form partnership approaches to the literacy problem. The U.S. Department of Labor and the U.S. Department of Education developed a joint publication, The Bottom Line: Basic Skills in the Workplace. This publication highlighted many workplace literacy programs that operate as successful partnerships. A few of the programs are highlighted here (The Bottom Line,1988).

Bell Atlantic's Aim to Learn and Succeed (ATLAS) literacy program was initiated in 1969 to enhance the skills of its workers. Since 1984 the program has expanded under

the auspices of Bell Atlantic and their unions (The Communication Workers of America and The International Brotherhood of Electrical Workers.) ATLAS is one of three programs available to employees for career and personal development. The home-study program and the tuition assistance plan are other programs available to Bell Atlantic's employees. The company and the unions jointly oversee the effectiveness of the programs through training advisory boards.

The employers are interested in developing their human resources for potential change and the unions are interested in educational development for their members to maintain their employability due to rapid changing industry. This assures that everyone has a stake in the program. The program addresses communication, computation and interpersonal skills. It is also designed to help employees with lateral job moves, promotional opportunities, and generic job skills.

The courses are conducted at the worksite. It is a voluntary program and participants must go on their own time. The success of the program is due in part to the convenient location, hours, and relevancy of courses to the employees career and personal lives. Also, employees have realized career advancements as a direct result of this program. The program is served under Bell Atlantic's Continuing Education Program which is located in Silver Springs Maryland.

AT&T Employee's Training Program is a coordinated effort with the local school district to offer GED training at the worksite. Courses are approximately two hours per class, twice-weekly, and last for ten weeks. Employees attend on their own time and AT&T has provided both the facilities and the funding for the program. There is a fifty percent completion rate and the company has reported improved employee morale as a result of the program.

AT&T also offers programs through the local colleges on the worksite. These classes are designed to develop mathematics skills required to enter other college courses. The company has a tuition assistance program too. These programs are serviced through AT&T Employees Training Programs in Richmond Virginia (The Bottom Line,1988).

Prince George's County Public School System and local employers have come together in a joint effort to contract adult basic education classes to provide workplace literacy programs. Some employers contact the ABE program on their own and other employers are referred or directed as a result of advertisements. Some employers pay the ABE program for individual semesters which may range from ten to twelve classes, twice a week with each class lasting for one hour. The cost may range between $1,200.00 to $1,879.00 per semester. Other employers order books from the ABE program and pay instructors directly.

The training isn't limited to reading and basic math. ESL is provided also. The targeted population for ESL thus

far has been registered nurses from Africa and South America. Employee work materials are used to enhance and make the instruction more meaningful. Such material as employee handbooks, forms, and newsletters are used as enhancement tools. Some employers offer the tutorial and classroom training as part of the employee's work hours and other employers pay for one-half of the training as an incentive. Evaluation forms are maintained to monitor each participants accomplishments. This program has assisted individuals in job promotions and many participants have entered into other training programs. This program is serviced through the resource teacher for ABE in Prince George's County Schools and is located in Upper Marlboro Maryland (Bottom Line,1988).

Fairfax County Public Schools ESL administers English in the Workplace to local employers such as hotels, hospitals, banks and offices. Training services is also provided for support service staff of Fairfax County Public Schools. Due to certain demographic changed in Fairfax, there is a growing workforce in need of ESL. Referrals originate from supervisors.

The cost is sometimes paid by employers or partially financed through grants from the Commonwealth of Virginia. Approximately 1,000 participants have benefited from this program. An assessment is made on each participant to identify language needs. Training is tutorial and in a classroom setting. Evaluation is ongoing throughout the

program. Each participant takes a standardize post-test and the supervisor also evaluates progress. The program is serviced through Fairfax Public Schools Adult ESL program and is located in Falls Church Virginia (Bottom Line,1988).

Although Americans recognize the literacy problem and is willing to join together in a concerted effort to head the situation off, a American Management Association (AMA) survey (1989) on basic skills testing and training revealed that one-third of the surveyed companies test job applicants and current employees reading, writing, and/or mathematic skills. Only one in ten companies have remedial training programs to upgrade basic skills if testing reveals deficiencies. Why do so few companies have company sponsored remedial training programs even after surveys indicate the need for them? Employers prefer not to deal with this problem (Sherman,1989).

According to the AMA survey, nine out of ten companies refuse to hire candidates who fail basic skills test. As a result, some lower paying jobs go unfilled and some employers may even raise the pay levels of these jobs to attract more qualified applicants, However, raising the pay level may solve the immediate problem but the long term cost to the company will be more than it would have cost to train the applicant with marginal reading and mathematics skills.

The AMA (1989) survey also indicated employers shock in discovering that employees lack such basic skills as reading and mathematics. This sometimes triggered the

creation of remedial training programs. Also, contrary to what most employers believed, most participants in remedial training programs were not new employees or those in need of ESL. Most of the employees in the AMA training program had at least one year and usually three years of experience on the job. The age ranged between nineteen and fifty years old but the bulk of the participants were between twenty-five and forty-five years of age (Sherman,1989).

According to the Center for Public Resources (1988), surveys revealed over sixty-five percent of the responding companies noted the lack of basic skills limited job advancemment of their high school graduates and seventy-three percent noted the lack of basic skills inhibited the advancement of their non-gradates. The percentage of basic skills difficulties reported by employerss in the survey were as follows:

1. Thirty percent of the secretaries had difficulty reading at the required level for the job.
2. Fifty percent of the managers and supervisors were unable to write paragraphs free of mechanical errors.
3. Fifty percent of the skilled and semi-skilled employees were unable to use decimals and fractions in math problems (Henery & Raymond,1983).

Some companies, such as Westinghouse Electric Corporation, are concerned with the safety of workers who cannot read warning labels and signs and follow written directions. Its been a growing issue in a number of court

cases which have lead to several terminations especially at the defense gear plant in Sunnyvale California (Milkulecky,1988). In the automobile industry unskilled workers are replaced by robots and automation. The need for maintenance and repair workers increased while the need for semiskilled and unskilled workers decreased. In general, the workers selected to stay on and learn new jobs are those with higher levels of basic skills (Collino,1988). One company spokesman for a major manufacturing company that did not offer basic education for their employees felt that the status quo should be maintained as long as their employees low literacy skills didn't contribute to a costly lawsuit for the company (Lee,1986). A survey done by Winterbauer (1985) revealed that there is a considerable variation in the degree of awareness among employers about the literacy problem in the workplace and this issue remains largely an invisible one.

The American Society for Training and Development(ASTD) has estimated that $30 billion a year is spent on formal employee training. Informal on-the-job training cost businesses about $180 billion a year (Collino,1988). This adds up to an astonishing $210 billion per year spent on training. ASTD's chief economist, A. Carnevale, estimated that the remedial training along with productivity losses caused by poorly educated workers, cost business about $25 billion a year. Some companies have problems gathering this data together because it is dispersed in different budgets.

An Evaluation of Literacy Programs in the Workplace

A partnership approach is necessary to significantly improve adult basic skills in the workplace (McIlvoy,1989). There are many successful partnerships currently in operation. These partnerships are functioning at all levels to include federal, state, local government, schools, unions, businesses, corporations and the community at large (Bottom Line,1988) These programs are beginning to fill the "skills gap" left by traditional schooling (Guidelines,1986)

Some of the recurring characteristics of successful workplace literacy programs are as follows:

- Ten to twelve week courses,
- One to two hour classes, twice weekly,
- classroom setting,
- individual assessment,
- tutorial style learning,
- location convenient to worksite or on worksite,
- Voluntary programs,
- joint partnerships,
- work-related or job-specific material,
- ongoing evaluation of the program,
- ongoing evaluation of each participant,
- referrals through supervisors,
- advertisement through bulletin boards, fliers, brochures, and newsletters,

- combination of employee going on own time or employer paying one-half to all of the employee's class time. (Bottom Line,1988)

On the other side of the coin, it was found that some companies did very little follow up on their literacy programs and some companies had no systematic evaluation of the impact of their literacy programs (Hull, Fields, Sechier,1986).

CHAPTER III

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

The ABE program was established through legislation in 1964 as part of the Economic Opportunity Act and a small strategy in the war on poverty. The Act broadened in the 1970's and 1980's to take into account more individuals from a variety of populations. It took on an employment economic focus as well.

It has been estimated that some 27 to 45 million adults in the United States lack basic skills. Some authors (Chang,1987; Workplace Literacy,1988) have explained workplace literacy programs to include (a) general adult; (b) work-related; and, (c) job-specific programs. These programs may focus on ABE, ESL or GED training depending on the participant's level or what is offered by their organization.

The shift in the United States economy from the production of goods to the provision of services has compounded the literacy needs in the workplace. America is not only looking at the lack of employee's basic skills in the workplace, but also the high demands in the workplace due to technology and the shift in the economy. The United States is behind in foreign competition, especially in

education and manufacturing. The United States will also be faced with drastic demographic changes by the year 2000 with more minorities and women in the workplace. This is why there is a need for literacy programs in the workplace.

The United States has not been investing in its major human resource which is people and now it seems investing in people is the only way to reverse the problem. The federal government must establish literacy as a priority and that in turn will stimulate the latent political support that is needed from all level of the government, schools, unions, businesses, and corporations.

In spite of the grim statistics, many organizations have come together to form partnerships to help improve their workforce through workplace literacy programs. Although the federal government has done little in the way of literacy efforts in the workplace and there has been sparse efforts on the state level, research reveals that strong efforts are made on the local level of government between many school districts and local employers such as AT&T Employee's Training Program, Prince George's County Public School System Program, and Fairfax County Public School ESL Program. Many corporations, businesses and unions are also putting forth strong literacy efforts in the workplace through partnership and collaborative efforts such as the partnership effort of Bell Atlantic's ATLAS program with its' unions and a tried and true program of Imperial Educational Corporation with businesses.

However, surveys by AMA (1989) report that nine out of ten companies prefer not to deal with the literacy problem in the workplace. These reports show literacy programs in the workplace is limited and is in fact underrepresented in the workplace. Also, companies who perfer not to deal with the literacy problem pay an even higher price in the long term through costly mistakes made by employees who lack the basic skills to do the job or by paying higher entry salaries to attract better qualified applicants.

Conclusions

The synthesized review of literature produced the summary from which the following conclusions are drawn:

1. The federal government must make literacy a priority in order to stimulate latent political support to help strengthen the economy and strengthen U.S. foreign competition.
2. Collaborative and partnership efforts from businesses and organizations are vital to the support of workplace literacy.
3. Successful collaborative and partnership efforts exist between the local government and schools and local employers, businesses, corporations and unions, and the federal government and corporations.
4. Presently, there is not enough support from businesses and organization to even start wiping out

workplace literacy. The extent of literacy programs in the workplace are limited and not widespread enough to help the literacy problem in the U.S.

5. Those employers, corporations, and organizations that choose not to deal with illiteracy today, will have a much higher price to pay tomorrow for things such as costly employee's mistakes and higher salaries.
6. The lack of basic skills among adults is widespread to millions of adults in the United States.
7. High demands and high technology in the workplace will more than likely grow, thus making the acquisition of literacy skills in the workplace more essential.

Recommendations

The following recommendations are based on the following conclusions:

1. The president should make literacy a priority of his administration.
2. Americans need to understand and recognize the latent political support available so it can be utilized.
3. There is a serious need for more commitment by businesses, organizations, corporations, schools, unions, and government at all levels in order to make a difference.

4. More model programs need to be developed.
5. Employees that have gone through literacy programs need to share their experience with others.

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